

Amendments to the Claims

Claim 1 (currently amended). A method of recovering cadmium and/or zinc from arable soil containing cadmium and/or zinc, comprising:

- (a) cultivating in said arable soil at least one *Thlaspi caerulescens* plant that accumulates from about 1000 to about 6000 mg cadmium/kg above-ground tissues on a dry weight basis and/or from about 15,000 to about 30,000 mg zinc/kg above-ground tissues on a dry weight basis under conditions sufficient to permit said at least one *Thlaspi caerulescens* plant to accumulate such amounts of cadmium and/or zinc; and
- (b) recovering the accumulated cadmium and/or zinc.

Claim 2 (original). The method of claim 1, wherein the accumulated cadmium and/or zinc is recovered by harvesting said at least one *Thlaspi caerulescens* plant as biomass material after accumulation of cadmium and/or zinc and recovering said cadmium and/or zinc from said biomass material.

Claim 3 (original). The method of claim 2, wherein said cadmium and/or zinc is recovered from said biomass material by drying and combusting said harvested biomass material to oxidize and vaporize organic material present.

Claim 4 (original). The method of claim 2, wherein said cadmium and/or zinc is recovered from said biomass material by incineration and reduction to ash with energy recovery to give a zinc- and/or cadmium-containing ore.

Claim 5 (original). A zinc and/or cadmium-containing ore produced by the method of claim 4.

Claim 6 (original). The method of claim 1, wherein said at least one *Thlaspi caerulescens* plant is *Thlaspi caerulescens G15*, the seeds of which have been deposited under ATCC Accession No. 203439.

Claim 7 (previously presented). The method of claim 1, wherein an acid is added to the soil prior to cultivation.

Claim 8 (original). The method of claim 1, wherein at least one chloride salt is added to the soil prior to cultivation.

Claim 9 (currently amended). An isolated *Thlaspi caerulescens* plant cultivated on cadmium- and/or zinc-containing arable soil that accumulates cadmium in above-ground tissue at a concentration of from about 100 mg/kg dry weight of said tissue to about 6000 mg/kg dry weight of said tissue and/or accumulates zinc in above-ground tissue at concentration of from about 5000 mg/kg dry weight of said tissue to about 30,000 mg/kg dry weight of said tissue.

Claim 10 (original). The isolated *Thlaspi caerulescens* plant of claim 9, wherein the genotype is *T. caerulescens G15*.

Claim 11 (original). Pollen of the plant of claim 9.

Claim 12 (original). A plant having all the physiological and morphological characteristics of the plant of claim 9.

Claim 13 (original). Propagation material of the plant of claim 9.

Claim 14 (original). A *Thlaspi caerulescens* G15 seed as deposited with the ATCC having Accession No. 203439.

Claim 15 (original). Cultivated *Thlaspi caerulescens* G15, the seeds of which have been deposited under ATCC Accession No. 203439.

Claim 16 (currently amended). A method of decontaminating arable soil containing cadmium and/or zinc, comprising cultivating in said arable soil at least one *Thlaspi caerulescens* plant that accumulates from about 100 to about 6000 mg cadmium/kg above-ground tissues on a dry weight basis and/or from about 5000 to about 30,000 mg zinc/kg above-ground tissues on a dry weight basis under conditions sufficient to permit said at least one *Thlaspi caerulescens* plant to accumulate such amounts of cadmium and/or zinc.

Claim 17 (previously presented). An ore produced by the method of claim 4 comprising plant ash and at least one of zinc and cadmium.